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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/710,894

08/11/2004

Kuen-Suey Hou

MTKP0123USA

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11/16/2005

NORTH AMERICA INTELLECTUAL PROPERTY CORPORATION

P.O. BOX 506

MERRIFIELD, VA 22116

EXAMINER

NGUYEN, MINH T

ART UNIT

PAPER NUMBER

2816

DATE MAILED: 11/16/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/710,894

Applicant(s)

HOU ET AL.

Examiner

Minh Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11 August 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____. |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>8/11/04</u> . | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-10 are rejected under 35 U.S.C. 102(b) as being anticipated by US Patent No. 6,147,530, issued to Nogawa.

As per claim 1, Nogawa discloses a phase locked loop PLL (figure 2) generating a phase locked signal (the OF signal) and adjusting a frequency of the phase locked signal according to an incoming signal (this is the function of any PLL, the incoming signal is the ID signal), the PLL comprising:

an oscillator (VCO 5) for generating the phased locked signal (the OF signal); and
a frequency detection module (frequency comparator 2) electrically coupled to the oscillator (the frequency comparator 2 is coupled to the VCO 5 through the divider 6) for detecting two regular patterns in the incoming signal (figure 6 is the detailed of the frequency comparator, figure 7 explains the operation, the two regular patterns are sync patterns of the EFM modulation signal, column 12, lines 48-65), calculating a number of periods of the phase locked signal corresponding to a distance between the two regular patterns (column 14, lines 31-41), and controlling the oscillator to adjust the frequency of the phase locked loop signal

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according to the number of periods (the frequency comparator 2 outputs FCUP and FCDN signals to control the VCO 5, column 15, lines 1-29).

As per claim 2, Nogawa further discloses the frequency detection module comprises:

a pattern detector (frame generating counter 25) for detecting the two regular patterns (the sync patterns of the EFM modulation signal, column 12, lines 48-65) in the incoming signal;

a counter (counter 212 and peak and bottom hold units 22 and 23) electrically coupled to the pattern detector for calculating the number of periods of the phase locked signal corresponding to the distance between the two regular patterns; and

a comparator (frequency error output unit 24) electrically coupled to the counter for comparing the number of periods with a predetermined value (SYNC pattern SY, column 15, lines 11 and 27) to generate a control signal (FCUP and FCDN), and using the control signal to control the oscillator to adjust the frequency of the phase locked signal.

As per claim 3, the recited limitation is described in column 15, lines 1-29.

As per claim 4, the recited control interface reads on the charge pump circuit 8 shown in figure 2 which provides the signal FVP for controlling the frequency of the OF signal.

As per claim 5, the recited limitations are described in column 12, line 48, and lines 60-64.

As per claim 6, Nogawa's oscillator is a voltage controlled oscillator as its name suggested, i.e., VCO.


As per claim 7, this claim is merely method to operate the PLL having the structure noted in claim 1. Since Nogawa teaches the circuit, the method to operate is inherently disclosed.

As per claims 8-10, these claims are rejected for the same reasons noted in claims 2-3 and 5, respectively.

2. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Minh Nguyen whose telephone number is **571-272-1748**. The examiner can normally be reached on Monday, Tuesday, Thursday, Friday 7:00-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Timothy Callahan can be reached on 571-272-1740. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

 11/8/05

Minh Nguyen
Primary Examiner
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